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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,463	04/09/2004	George G. Pappas	LUM 204	1073

2555 7590 09/20/2005

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REYNOLDSBURG, OH 43068

EXAMINER
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EARLY, MICHAEL JACOBY

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/821,463

Applicant(s)

PAPPAS, GEORGE G.

Examiner

Michael J. Early

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>04/09/2004</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

#### **Priority**

All the content submitted with this application has been reviewed and it has been determined that neither domestic nor foreign priority has been claimed.

#### **Information Disclosure Statement**

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### **Oath/Declaration**

The Oath/Declaration for this application meets all of the requirements set forth and has been approved.

#### **Drawings**

The drawings were received on 07/02/04. These drawings are acceptable because they meet the requirements set forth (i.e. reasonably free from erasures and must be free from alterations, overwriting, interlineations, folds, and copy marks) in the Pre-Exam Formalities Notice that was mailed on 06/25/04.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 30, 32, 34, 36, 38, 40, 42, 43 and 45. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any

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amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Specification**

The disclosure is objected to because of the following informalities:

- On page 7, paragraph 0022, it states "...will have a melting point temperature at which is will change from...". It is suggested that the word "is" be replaced with --it--. It is suggested that the applicant thoroughly proofread this application and correct for any further errors that are found.
- On page 8, paragraph 0024, it states "However, the lower fuel region 16 can be substantially the same diameter as the upper fuel region 12, as shown in Fig. 4.". Referring to Figure 4, the upper fuel region is displayed as element 42 and the lower fuel region is displayed as element 46. It is suggested that the applicant review both the paragraph and figure referenced and make the appropriate corrections.

Appropriate correction is required.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chang (U.S. 4,225,552).

Chang discloses a decorative candle comprising of a wick (11 – wick) surrounded by a solid fuel body, the fuel body including an upper fuel region (15 – outer shell) of the solid fuel body having a first melting point (“...ideally slightly higher than 138°F but no higher than 143°F.”, see col. 2, lines 38 – 40) and a lower fuel region (10 – core) of the solid fuel body having a second melting point (“...ideally would be about 138°F.”, see col. 2, lines 8 – 9) at a lower temperature than the first melting point, the lower fuel region extending at least below the wick for extinguishing the candle (as seen in Figure 1).

Claims 12, 14 – 20 and 22 – 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Wohl et al. (U.S. 5,597,300).

Wohl et al. disclose of a method for making a candle having a candle fuel body surrounding a wick, comprising of: forming an upper fuel region (100 – outer shell), which is typically made out of wax (see col. 4, lines 13 – 16), of the fuel body with a void (102 – inner core); which is made out of wax (see col. 4, lines 11 – 13), frusto-conical shaped and has a diameter less than the diameter of the upper fuel region (as seen in Figure 1b); extending at least below the wick (108 – wick; as seen in Figure 1b) and filling the void with a candle fuel having a melting point at a lower temperature than the melting point of the upper fuel region to form a lower fuel region in the void (see col. 3, lines 25 – 36). Wohl et al. further disclose of the void being filled with a wax having a melting point at least six (as well as three) degrees less than the melting point of the upper fuel region (see col. 2, lines 48 – 50 and lines 55 – 60).

The void of the Wohl et al. candle can also be viewed as being cylindrically shaped with the exception that the diameter along its bottom surface is slightly larger than that on its top surface (as seen in Figure 1b). In addition, for clarification purposes, it should be noted that before the wax of the inner core (102) is poured into the candle's outer shell (100), a void of some sort must be present during the manufacturing of the candle.

Regarding claims 20 and 22 – 28, Wohl et al. disclose of a method for making a candle, the method comprising of: forming an upper fuel region (100 – outer shell), the upper fuel region formed of a candle fuel, which is typically made out of wax (see col. 4, lines 13 – 16), having a first melting point; and forming a lower fuel region (102 – inner core); which is made out of wax (see col. 4, lines 11 – 13), frusto-conical shaped and has a diameter less than the diameter of the upper fuel region (as seen in Figure 1b); at one end of the upper fuel region, where the lower fuel region is adjacent to the wick (as seen in Figure 1b) and has a second melting point at a lower temperature than the first melting point (see col. 3, lines 25 – 36). Wohl et al. further disclose that the first melting point is at least three (as well as six) degrees greater than the second melting point (see col. 2, lines 48 – 50 and lines 55 – 60).

The lower fuel region (102 – inner core) of the Wohl et al. candle can also be viewed as being cylindrically shaped with the exception that the diameter along its bottom surface is slightly larger than that on its top surface (as seen in Figure 1b). Again, for clarification purposes, it should be noted that before the wax of the inner core (102) is poured into the candle's outer shell (100), a void of some sort must be present during the manufacturing of the candle.

In addition, through visual inspection, it can be seen that the lower fuel region of the Wohl et al. candle is formed with a diameter that is substantially equal, in the broadest sense of terms, to the diameter of the upper fuel region (as seen in Figure 1b). The examiner would like to note that the word “substantially” is being interpreted to mean: “being largely but not wholly that which is specified” (On-line source: <http://www.m-w.com>, viewed on 9/14/05).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Pappas (U.S. 5,842,850).

As stated earlier, Chang discloses of a decorative candle with possible exception to a candle comprising of:

- a sustainer mounted on the lower end of the wick to support the wick;
- a fuel body that is a wax;
- a lower fuel region that is cylindrical, only below the candle's wick and has a diameter less than to the diameter of the upper fuel region.

Attention is directed to the secondary reference, Pappas, which teaches of a sustainer for a candle wick that causes the candles' flame to go out before its fuel exceeds its flashpoint and is completely consumed (col. 1, lines 6 – 9). Pappas states that the candle (10) contains a container (12); a fuel (14), which is preferably a wax and in the shape of an inverted frusto-conical (as seen in Figure 2), and a wick (18) mounted to a sustainer (16), which is on the floor (13) of the candle (see col. 3, lines 10 – 13; Figure 1). It is further disclosed that the sustainer can prevent the phenomenon of flashover of occurring because the sustainer: has a significant height, which allows the flame to be kept above the candle's floor, and is sealed along its bottom edge (19) to restrict the flow of fuel through the candle's bore (20) (see col. 3, lines 65 – 67; col. 4, lines 1 – 11).

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Through visual inspection, it can be seen that Chang's candle comprises of a lower fuel region that is cylindrically shaped, located below the candle's wick and has a diameter that is substantially equal, in the broadest sense of terms; to however less, than the upper fuel region's (as seen in Figures 1, 2 and 4). The examiner would like to note that the word "substantially" is being interpreted to mean: "being largely but not wholly that which is specified" (On-line source: <http://www.m-w.com>, viewed on 9/14/05). As stated earlier, Chang also discloses that candle's first melting point is at least three degrees greater than the second melting point (see col. 2, lines 8 – 9 and lines 38 – 40).

In addition, the examiner would like to note that although the wick is enclosed within the candle's lower fuel region, through visual inspection, no portion of the lower fuel region is seen to be located above the wick (as seen in Figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing candle of Chang by installing a sustainer, as taught by Pappas, to prevent the phenomenon of flashover occurring as the candle is used.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Pappas and in further view of Wohl et al..

As stated earlier, Chang discloses of a decorative candle with possible exception to a candle comprising of a first melting point that is at least six degrees greater than the second melting point.

Attention is directed to the secondary reference, Wohl et al., which as stated earlier, teach of a void being filled with a wax having a melting point at least six degrees less than the melting point of the upper fuel region (see col. 2, lines 48 – 50 and 55 – 60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing candle of Chang in view of Pappas by using waxes that have melting points that are at least six degrees apart from each



other, as taught by Wohl et al., to provide candles that are manufactured for safe use by consumers.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Morrison et al. (U.S. 5,879,694).

As stated earlier, Chang discloses of a decorative candle with possible exception to a candle comprising of a lower fuel region that contains a flame retardant.

Attention is directed to the secondary reference, Morrison et al., which teach of still gel compositions, which may contain advantageous properties, that can be used to form a candle (see col. 2, lines 28 – 31). Morrison et al. state that a flame retardant, a functional additive, can be included at a suitable location within the candle's composition in order to automatically extinguish the candle. It is further disclosed that the candle will burn in a normal manner until it reaches the area in which the flame retardant is incorporated (see col. 8, lines 22 – 35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing candle of Chang by including a flame retard within the candle's composition, as taught by Morrison et al., for the purpose of providing a functional additive that enables the candle to extinguish on its own during normal operation.

Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wohl et al. in view of Pappas.

As stated earlier, Wohl et al. disclose of a candle and process for its manufacture with possible exception to a method comprising of mounting a sustainer on the lower end of the wick to support the wick.

Attention is directed to the secondary reference, Pappas, which as stated earlier, teaches of a sustainer for a candle wick that causes the candles' flame to go out before its fuel exceeds its flashpoint and is completely consumed (col. 1, lines 6 – 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing candle of Wohl et al. by installing a

sustainer, as taught by Pappas, to prevent the phenomenon of flashover from occurring while the candle is being used.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wohl et al. in view of Morrison et al..

As stated earlier, Wohl et al. disclose of a candle and process for its manufacture with possible exception to mixing a flame retardant in the lower fuel region.

Attention is directed to the secondary reference, Morrison et al., which as stated earlier, teach of still gel compositions, which may contain advantageous properties, that can be used to form a candle (see col. 2, lines 28 – 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing candle of Wohl et al. by including a flame retard within the candle's composition, as taught by Morrison et al. and discussed earlier, for the purpose of providing a functional additive that enables the candle to extinguish on its own during normal operation.

#### **Claim Suggestions**

In claim 5 it reads: "A candle in accordance with claim 4, wherein the lower fuel region has a diameter less than to the diameter of the upper fuel region.". It's noted for clarification purposes that the word "to" should be removed from the sentence so that it reads: "...a diameter less than the diameter of the...".

Appropriate correction is required.

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJE  
9/15/05

Michael J. Early  
Patent Examiner  
Art Unit 3749



  
**MONICA S. CARTER**  
**PRIMARY EXAMINER**